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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,320	06/08/2000	Martin J Hannon	D-0023-PC(142-98)	1546

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EXAMINER	
TOOMER, CEPHIA D	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/590,320	HANNON ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/25/03 .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7,10-19 and 22-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-7,10-19 and 22-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

This Office action is in response to the amendment filed February 25, 2003 in which claims 1 and 16 were amended.

The rejection of claim 1 under 35 U.S.C. 112, second paragraph, is withdrawn in view of the amendment to the claims.

The previous rejection of the claims is withdrawn in view of Applicant's arguments.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-7, 11-19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 479,526 in view of Materne (US 6,273,163).

EP teaches a rubber composition from about 0.1 to 15 parts by weight of tetra-2-ethylhexyl thiuram disulfide (formula I), 0.1 to 8.0 parts by weight sulfur, and carbon black as a filler (see abstract; page 2, lines 30-51, page 3, lines 1-12, 41-54, Table 2, Example 2). The rubber component comprises natural rubber, styrene/butadiene copolymer rubbers, polyisoprene rubber, nitrite rubber, etc. (see page 2, lines 54-57). EP teaches that the rubber composition has both excellent scorching stability and thermo-resistant properties. The rubber compositions comprise additional conventional additives and are manufactured into articles such as, tires, belts, and hoses (see page 3, lines 8-19). EP teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, EP fails to teach the addition of silica filler. However, Materne teaches this difference.

Materne teaches rubber compositions comprising 10-96 wt% of fillers selected from carbon black, alumina and silica-based fillers (see col. 4, lines 29-46; col. 10, lines 13-15).

It would have been obvious to one of ordinary skill in the art to have either substituted silica fillers for the carbon black fillers of EP or to have included silica fillers in the addition to carbon black in the rubber composition of EP because the substitution of art recognized equivalents is prima-facie obvious and because it is prima facie obvious to combine two components each of which is taught by the prior art to be useful for the same purpose ,in order to form a third component to be used for the very same purpose. *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980). Furthermore, Materne teaches that silica fillers could be used in combination with carbon black.

In the second aspect, EP differs from the claims in that it does not specifically teach the coupling agent of claims 12 and 24. However, Materne teaches organo-silane polysulfide coupling agents such as, bis (3-tristhoxysilyl propyl) trisulfide (see col. 10, lines 59-65).

It would have been obvious to one of ordinary skill in the art to have included a coupling agent in the composition of EP because EP teaches that conventional additives used in the rubber industry may be present in its invention. Therefore, it would be reasonable to expect that the coupling agent would perform its attendant function.

Claims 1-7, 10-19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usamoto et al (US 3,852,354) in view of Materne (US 6,273,163).

Usamoto teaches a rubber composition comprising natural rubber or other highly unsaturated rubbers, a thiuram compound wherein R^1-R^4 are the same or different and are alkyl groups having from 12-18 carbon atoms (see abstract; col. 3, lines 28-45; col. 4, lines 33-40). Usamoto teaches that the rubber composition may contain conventional rubber composition additives such as fillers and plasticizers (see col. 4, lines 48-52). The rubber composition of the examples contains 50 parts carbon black as the filler. Usamoto teaches that the rubber composition may be manufactured into automobile parts and tire components (see col. 4, lines 57-65). Usamoto teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Usamoto differs from the claims in that he fails to teach the method for increasing the Mooney Scorch value of the rubber composition. However, no unobviousness is seen in this difference because Usamoto teaches a rubber composition that does not contain diphenyl guanidine. Therefore, it would be reasonable to expect that the Mooney Scorch value of the rubber composition would increase in the absence of diphenyl guanidine.

In the second aspect, Usamoto fails to teach the addition of silica filler. However, Materne teaches this difference.

Materne teaches rubber compositions comprising 10-96 wt% of fillers selected from carbon black, alumina and silica-based fillers (see col. 4, lines 29-46; col. 10, lines 13-15).

It would have been obvious to one of ordinary skill in the art to have either substituted silica fillers for the carbon black fillers of Usamoto or to have included silica fillers in the addition to carbon black in the rubber composition of Usamoto because the substitution of art recognized equivalents is prima-facie obvious and because it is prima facie obvious to combine two components each of which is taught by the prior art to be useful for the same purpose ,in order to form a third component to be used for the very same purpose. *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980). Furthermore, Materne teaches that silica fillers could be used in combination with carbon black.

In the second aspect, Usamoto differs from the claims in that it does not specifically teach the coupling agent of claims 12 and 24. However, Materne teaches organo-silane polysulfide coupling agents such as, bis (3-tristhoxysilyl propyl) trisulfide (see col. 10, lines 59-65).

It would have been obvious to one of ordinary skill in the art to have included a coupling agent in the composition of Usamoto because Usamoto teaches that conventional additives used in the rubber industry may be present in its invention. Therefore, it would be reasonable to expect that the coupling agent would perform its attendant function.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone

numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Cephia D. Toomer
Primary Examiner
Art Unit 1714

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June 4, 2003